

**AMENDMENTS TO THE SPECIFICATION**

**Please replace the first full paragraph under the heading “Field of the Invention” at page 1 of the specification with the following amended paragraph:**

The present invention relates to the manufacture of optical fibres. In particular, the invention concerns a method ~~according to the preamble of claim 1~~ of subjecting a glass preform to processing by tensile forces in a heating oven for making optical fibres or for stretching of the glass perform into a form suitable for fibre manufacture.

**Please replace the second full paragraph under the heading “Field of the Invention” at page 1 of the specification with the following amended paragraph:**

The present invention can be used also in other preform-making processes and equipment thereof, like in MCVD lathes and sintering furnaces, ~~as defined in the preamble of claim 28.~~

**Please replace the fourth full paragraph under the heading “Field of the Invention” at page 1 of the specification with the following amended paragraph:**

The present invention is also concerned with an apparatus ~~according to the preamble of claim 17~~ for processing of glass performs.

**Please replace the third full paragraph at page 3 with the following amended paragraph:**

A typical mechanical sealing of the kind mentioned above is also shown in the attached Figure 2. In the figure, reference numeral ~~1~~1.1 stands for the supporting block of the iris, 1.2 designates the clamping ring of a sealing felt (reference numeral 1.3), and number 3 stands for a glass preform and 4 for the furnace body.

**Please replace the fourth full paragraph at page 6 of the specification with the following amended paragraph:**

More specifically, the processes according to the present invention is mainly characterized by:

(1) maintaining the concentration of gaseous impurities in the furnace essentially on the same level as the concentration of the same impurities in the inert gas fed into the furnace, establishing a diffusion barrier against the inflow of undesired gaseous components from the ambient air, driven by the forces of diffusion, by generating a barrier flow of inert gas in at least one opening selected from said inlet opening and said outlet opening of the furnace, said barrier flow having a direction of flow, which is generally opposite to the direction of the diffusion; and

(2) forming a diffusion barrier in the at least one gas conduit interconnecting the gas space inside the heat treatment device with the ambient atmosphere to seal off the conduit against flow of gas in at least one direction through the conduit, what is stated in the characterizing parts of claims 1 and 28.

**Please replace the fifth full paragraph at page 6 of the specification with the following amended paragraph:**

The apparatus according to the invention is characterized by a first diffusion barrier zone at the first opening for preventing inflow of undesired gaseous components from the ambient air, driven by the forces of diffusion, into the furnace chamber during heating of the glass preform, what is stated in the characterizing part of claim 17.

**Please replace the paragraph bridging pages 6-7 of the specification with the following amended paragraph:**

The present invention provides considerable advantages. Thus, the solution according to the invention can be used in the manufacture of optical fibre, such as MCVD, PVD, stretching, collapsing, sintering, sleeving of glass blanks, which in the following are also called “preforms”, in the processes mentioned above and in various furnaces needed for their combination processes and in a fibre drawing furnace. The invention can be used to provide non-contacting sealing, the consumption of protective gas can be optimised and the number of exact parts minimized by the method described in the invention and, furthermore, it enables simultaneous rotation of the preform. It can be one way or two direction type and it can be used at all temperatures as well as with all gases. The protective gas can be inert or active but it has to be suitable for the specific case. The invention combines and integrates the gas feeding system, the washing or flushing flow of the furnace, the chimney effect, the upper opening (also called the “upper iris”), the lower opening (also called the “lower iris”), and their physical dimensions.

**Please replace the paragraph bridging pages 14-15 of the specification with the following amended paragraph:**

I-In Figure 3, the flowing pattern in the iris is disclosed. A similar barrier flow can be used in other external and internal inlets and outlets according to the invention. The present invention aims at preventing the flow of undesired gas molecules via the inlet (e.g. into the oven). The prerequisite of the dimensioning is that an inflow having a tolerable level of impurities is allowed. Complete purity is not an aim. Such an acceptable level is the concentration of impurities in the inert protective gas (used for producing a barrier flow) or a

fraction (e.g. a tenth part) thereof. On the other hand, the effectiveness of the barrier is also influenced by the barrier distance available. The barrier flow can be calculated from the cross-section of the opening and the volume flow of the barrier flow.